



## FLIRT ELECTRICAL LOW-FLOOR MULTIPLE-UNIT

Since its market launch in 2004, more than 1500 trains of the FLIRT type have been sold in 18 different countries. Depending on the equipment fitted, the FLIRT can be used for suburban, regional and intercity rail routes. Furthermore the passenger capacity can be adjusted at the demand using three to six cars per train unit. During development of the new generation FLIRT, particular importance was placed on low energy consumption and reduced maintenance costs. In addition, the TSI norm (Technical Specification for Interoperability) and Crash worthiness norm (EN 15227) were implemented. The FLIRT excels due to its modular train configuration, comfortable low-floor entrances, its open, bright and transparent interior as well as its individual customisation options for seating arrangements, multifunctional areas and luggage racks. Sealed engine compartments provide the traction equipment with optimum protection from rain, dust, snow and ice. Pneumatic suspension, high-grade materials, a modern passenger information system and a pleasant, proven HVAC system guarantee comfortable travel for everyone on board.

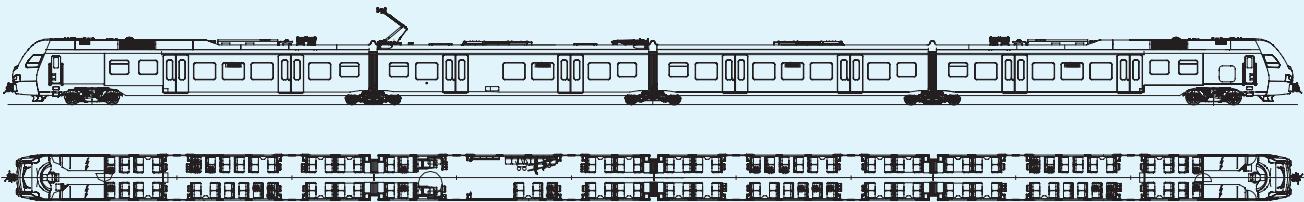
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## Technical features

### Technology

- Standard four car configuration modularity for three to six car version
- Low-floor area about 90%
- Trailer bogies with pneumatic suspension
- Multiple-unit control of more trains

### Comfort

- Transparent, open interior design and easy access for the elderly, families and people with reduced mobility
- Spacious multipurpose area in entrance section
- Air conditioned passenger compartments and drivers' cabs
- Vacuum toilet system in the low-floor area, suitable for people with reduced mobility

### Personnel

- Ergonomically designed driver's desk

### Reliability/Availability/Maintainability/Safety

- Redundant drive equipment consisting of 4 drive chains with water-cooled IGBT power converters
- Vehicle control system with train bus and diagnostic computer

### Vehicle data 4 car configuration

<b>Gauge</b>	1435 mm
<b>Supply voltage</b>	15kV, 16.6 Hz/25 kV, 50 Hz/ 3 kV DC/1.5 kV DC
<b>Axle arrangement</b>	Bo'2'2'2'Bo'
<b>Seating capacity incl. tip up seats</b>	235
<b>Floor height</b>	
Low -floor	600–780 mm
High- floor	1200 mm
<b>Entrance width</b>	1300 mm
<b>Overall length</b>	80.7 m
<b>Vehicle width</b>	2820–2880 mm
<b>Axle base</b>	2700mm
<b>Driving wheel diameter, new</b>	870 mm
<b>Carrying wheel diameter, new</b>	760mm/870mm
<b>Max. power at wheel</b>	2600–3000 kW
<b>Starting traction force</b>	200 kN
<b>Starting acceleration</b>	1.2 m/s <sup>2</sup>
<b>Maximum speed</b>	160 km/h